

(19) World Intellectual Property Organization  
International Bureau(43) International Publication Date  
29 March 2001 (29.03.2001)

PCT

(10) International Publication Number  
WO 01/22617 A3(51) International Patent Classification<sup>7</sup>: H04B 7/005

(74) Agent: BERGGREN OY AB; P.O. Box 16, FIN-00101 Helsinki (FI).

(21) International Application Number: PCT/FI00/00786

(22) International Filing Date:  
18 September 2000 (18.09.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
19991994 17 September 1999 (17.09.1999) FI

(71) Applicant (for all designated States except US): NOKIA NETWORKS OY [FI/FI]; P.O. Box 300, FIN-00045 Nokia Group (FI).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

Published:

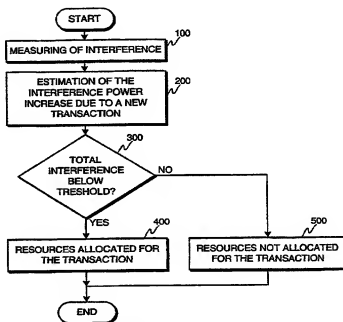
(75) Inventors/Applicants (for US only): LAAKSO, Janne [FI/FI]; Paraistentie 17 C 44, FIN-00280 Helsinki (FI). VALKEALAHTI, Kimmo [FI/FI]; Hämeentie 5a B, FIN-00530 Helsinki (FI).

— with international search report

(88) Date of publication of the international search report:  
18 October 2001

[Continued on next page]

(54) Title: POWER ESTIMATION METHOD



(57) Abstract: The invention is related to control of transmissions in spread spectrum radio systems, more accurately to estimating transmission power increases caused by new transactions in the system. According to the invention, the estimate of interference power increase due to a new transaction is calculated at least partly on the basis of the current fractional load, the current received interference power level, and a load factor  $\delta L$ , which is calculated essentially on the basis of the chiprate, the bitrate of the new transaction, and the estimated required signal-to-interference ratio for the service type of the new transaction.

200250 64807001

WO 01/22617 A3